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| EXAMINER |
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ELMORE, STEPHEN C

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| ART UNIT | PAPER NUMBER |
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2186

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/612,367

Applicant(s)

ROWLAN, STACEY R.

Examiner

Stephen Elmore

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7,9-17,22-36,39-41 and 43 is/are rejected.
- 7) ☒ Claim(s) 4,8,18-21,37,38 and 42 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


STEPHEN C. ELMORE
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. This Office action responds to the application filed July 7, 2003.
2. Claims 1-43 are presented for examination.

Drawings

3. The drawings are objected to because:
 - a. The drawings are objected to under 37 CFR § 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following feature(s) must be shown or the feature(s) canceled from the claim(s):
 1. Claims 5 and 29, the "aircraft altitude" feature;
 2. Claims 4, 8, 9, 13, 18-20, 25, 28, 32, 34, 38, and 42, the features "containing instructions...";
 3. Claim 11, "default parameters" feature;
 4. Claims 3, 15 and 27, "wherein a table defines a relationship between the sequence of hexadecimal characters and the data to be recorded" -- the feature represented by the activity "defines" is not shown;
 5. Claim 37, the feature "(steps of) using a lookup table...".

No new matter should be entered.

- d. The drawings are objected to as failing to comply with 37 CFR § 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

1. page 3 and 7, ref signs 100, 302, 306;
 2. page 13, ref signs 1 and 3;

- e. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 404.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be

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canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR § 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities:

a. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention (novelty) to which the claims are directed. The title is so general it does not identify any novel feature of the claimed invention, and thus cannot be descriptive of the "invention" as claimed, instead the title clearly describes only prior art technology. See MPEP § 606.01.

b. The possible use of trademarked products has been noted in this application at page 4. Any use of trademarked products should be capitalized wherever they appear and be accompanied by the generic terminology;

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks;

c. the specification is objected to for incorrectly incorporating by reference untitled document "ARINC-429";

IMPORTANT

Examiner's Request for Information: Applicant is requested to provide a copy of the industry or trade standard publication "ARINC-429", that has been incorporated by reference, so it can be considered and made of record on a PTO-849 to make the file complete.

Additionally:

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1) the identification in the specification of an industry standard needs to include the date of the standard's publication in order to establish the identity and therefore the scope of disclosure of the specific document which Applicant intends to incorporate by reference, standards may change over time; and

2) review of the actual publication is necessary in order for the Examiner to consider it for "essential subject matter" with respect to the present invention;

d. page 15, para [00044], last line, contradictory reference character "206" (data file portion) has already been used in the spec to refer to Weather Radar Unit 206.

Appropriate correction is required.

Claim Objections

5. Claim 34 is objected to because of the following informalities: no period.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2, 3, 5, 9, 11-12, 13-15, 22, 24-34, 36 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are indefinite because:

a. Claims 2, 14, 26, and 36 are incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are, in the language,

"the position and bit value of the hexadecimal characters determining the information to record"

because it is not possible, according to the disclosure, paragraph [00037], to determine the information to record by the use of "the position and bit value of the hexadecimal characters" alone,

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instead, accomplishing the activity "determining the information to record" requires additional structural cooperative elements and relationships, e.g., instructions are interpreted by the processor to apply the position and bit value to the decoder table to determine the information to record, by which disclosure, essential structural cooperative relationship of elements are not present in these claim limitations, making the scope of these claims indefinite;

b. Claim 2, "the information" lacks proper antecedent basis;

c. Claims 3, 15 and 27 are indefinite because the language,

"wherein a table defines the relationship between the sequence of hexadecimal character and the data to be recorded"

is nonsensical language because:

a table alone cannot accomplish the "defines the relationship" activity, a table by itself (being a passive element) can only store data, a table by itself cannot "define" anything, and finally, a table by itself cannot perform any further functionality with respect to the data it stores except to store it, therefore, this language, which implies that a table is performing more functionality, is missing some essential element(s) and/or necessary structural cooperative relationships between elements in order to specify how the table, in combination with something else, is able to "define" the claimed relationship;

d. Claims 5, 29 and 39 are indefinite because the language,

"wherein the certain defined conditions include aircraft altitude"

fails to suggest a proper specific condition because every aircraft has an altitude, altitude *per se* is not a specific characteristic it is so general that it is universal, a proper defined condition may include an aircraft having a specific altitude, or having an altitude greater or less than a specific amount;

e. Claim 9, "the processor units" lacks proper antecedent basis;

f. Claims 11 and 12, it is unstated what element performs the saving and storing activities in these claims;

g. Claim 13, "having instruction" is non-idiomatic English;

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- h. Claim 22, this claim is indefinite because processors do not include slots for inserting memory cards, processor units may contain slots, but processors do not;
- i. Claim 24, "the plurality of inputs" and "the plurality of outputs" lack proper antecedent basis;
- j. Claim 25, "including instruction" is non-idiomatic English;
- k. Claim 26, "the parameters" lacks proper antecedent basis;
- l. Claim 28, "to start and recording data" is non-idiomatic English;
- m. Claim 34, "including instruction" is non-idiomatic English;
- n. Claims 16-21, 23, 30-33, and 37 inherit the deficiencies of the parent claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 6, 7, 10, 13, 16, 17, 22, 23, 35, 40, 41 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Jiang, US Patent No. 6,278,913 when read in light of the extrinsic evidence - web page publication "CompactFlash Info" located at <http://www.compactflash.org/info/cfinfo.htm>.

Jiang teaches the claimed apparatus for reading data about a system (claim 1), memory card for storing test data (claim 13), and method for recording data concerning a system (claim 35), as an automated flight data management system, see Abstract and Summary, which incorporates a portable memory device to store flight data, pre-specified on the portable memory device, and collected by the flight data collection system, col. 1, lines 8-9 and 47-56, Figure 1, col. 3, line 60 - col. 5, line 9, comprising: as per claim 1, a memory card comprising a supplemental file and a file storage section, taught as "parameter tag list", col. 5, lines 1-5, which is inherently stored as a file in a file storage section of the portable memory device, which is taught as a smart card, a processor unit (smart log box) operable to read from and write to the memory card, and wherein the supplemental file of the

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memory card is read by the processor unit, Col. 7, lines 37 - col. 8, line 26, the supplemental file instructing the processor unit what data to save in the file storage section, col. 5, line 1-5; as per claim 13, a supplemental file section storing a supplemental file having instruction(s) delineating the data to be recorded, taught as parameter tag list, col. 5, line 1-5, and a file storage area for storing data based on the instructions in the supplemental file, which is inherently stored as a file in a file storage section of the portable memory device, which is taught as a smart card, a processor unit (smart log box) operable to read from and write to the memory card, and wherein the supplemental file of the memory card is read by the processor unit, Col. 7, lines 37 - col. 8, line 26; as per claim 35, storing a supplemental file on a memory device, the supplemental file containing instructions indicating the data to record, coupling the memory device to a processor unit, reading the supplemental file and storing the data to the memory device, taught as the parameter tag list, which is inherently stored as a file in a file storage section of the portable memory device, which is taught as a smart card, a processor unit (system controller) operable to read from and write to the memory card, and wherein the supplemental file of the memory card is read by the processor unit, Col. 7, lines 37 - col. 8, line 26;

as to dependent claims 6, 22, and 40, the slot limitation is taught, see Figure 1, showing the smart card being inserted into the slot of the smart log box;

as to dependent claims 10, 16 and 43, the solid state feature is taught by the conventional smart card, col. 2, lines 61-64, where it is inherent that conventional smart cards use solid state memory;

as to dependent claims 7, 17 and 41, the feature CompactFlash is taught, col. 4, lines 42-45, since the set of all portable memory cards that are PCMCIA type include CompactFlash cards because CompactFlash are known since 1994 to provide PCMCIA-ATA functionality and compatibility, by conforming to PCMCIA-ATA specs, as demonstrated by the extrinsic evidence web page publication "CompactFlash Info" at <http://www.compactflash.org/info/cfinfo.htm>;

as to dependent claim 23, this limitation is taught since the reference teaches that the portable memory card is used in aircraft, col. 5, lines 52-55.

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10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claim 24 is rejected under 35 U.S.C. 102(e) as being anticipated by Pearson, US Patent 6,768,943.

Pearson teaches the claimed collision avoidance system for an aircraft comprising: a collision avoidance processor unit having a plurality of data inputs and a plurality of data outputs, see element 408 and a memory device coupled to the collision avoidance processor unit, the memory device operable to store data from the one or more of the plurality of (data) inputs, one or more of the plurality of (data) outputs and data generated internally to the collision avoidance processor unit portable memory 434, col. 4, line 12 - col. 5, line 65, and col. 7, line 42-65.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 25, 30, 31, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearson, US Patent 6,768,943 in view of Jiang, US Patent No. 6,278,913 when read in light of the extrinsic evidence - web page publication "CompactFlash Info" located on the web at <http://www.compactflash.org/info/cfinfo.htm>.

Pearson teaches the claimed collision avoidance system for an aircraft (claim 24), as noted above, col. 4, line 12 - col. 5, line 65, and col. 7, line 42-65, however, Pearson does not teach wherein

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the memory device includes a supplemental file stored on the memory device, the supplemental file read by the collision avoidance processor unit when the memory device is communicatively coupled to the collision avoidance processor unit, the supplemental file including instruction(s) that indicate what data is to be recorded to the memory device (claim 25), but Jiang teaches these features, taught as using a "parameter tag list", col. 5, lines 1-5, which is inherently stored as a file in a file storage section of the portable memory device, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Pearson's aircraft collision avoidance system to incorporate Jiang's automated flight data management system because, as suggested by Jiang at col. 1, lines 46-56, the incorporation of an automated system for collection and management of flight data indicative of aircraft operating parameters and a pilot's actions would be useful to eliminate errors and to provide a more complete record of events occurring during the flight of an aircraft, and the event of a possible or near likely collision would inherently be a significant flight event worthy of making such a combination such as Pearson in view of Jiang for the benefits as suggested by Jiang, therefore, the combination Pearson in view of Jiang would then teach the limitations, wherein the memory device includes a supplemental file stored on the memory device, the supplemental file read by the collision avoidance processor unit when the memory device is communicatively coupled to the collision avoidance processor unit, the supplemental file including instruction(s) that indicate what data is to be recorded to the memory device, see Jiang, taught as "parameter tag list", col. 5, lines 1-5, which is inherently stored as a file in a file storage section of the portable memory device, the parameter tag list being read by the Collision Avoidance Processor Unit 408 (Pearson) when the memory device is communicatively coupled to the collision avoidance processor unit, the supplemental file including instruction(s) that indicate what data is to be recorded to the memory device 434 (Pearson);

as to dependent claims 30, 31, 33 and 34, the combination Pearson in view of Jiang teaches, wherein the memory device is removably inserted into a slot located on the collision avoidance processor unit, see Jiang, Figure 1, slot in Layer 3, as a slot for inserting the portable memory device; and the combination also teaches the limitations wherein the memory device is a CompactFlash card, because taught at, col. 4, lines 42-45, Jiang, since the set of all portable memory cards that are

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PCMCIA type include CompactFlash cards because CompactFlash are known since 1994 to provide PCMCIA-ATA functionality and compatibility, by conforming to PCMCIA-ATA specs, as demonstrated by the extrinsic evidence web page publication "CompactFlash Info" at <http://www.compactflash.org/info/cfinfo.htm>; and the combination teaches that the memory card is a solid state memory card, see Pearson, col. 12, line 38-43.

Allowable Subject Matter

14. Claims 4, 8, 18-21, 37, 38 and 42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and if rewritten to overcome any applicable rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action of the limitations of the base claim and any intervening claims.

Conclusion


15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Elmore whose telephone number is (571) 272-4436. The examiner can normally be reached on Mon-Fri from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

August 7, 2005


STEPHEN C. ELMORE
PRIMARY EXAMINER